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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/847,056	05/01/2001	Mark J. Takatz	2479.2068-000 (TAN00-58)	4567
21005	7590	07/12/2005	EXAMINER	
HAMILTON, BROOK, SMITH & REYNOLDS, P.C. 530 VIRGINIA ROAD P.O. BOX 9133 CONCORD, MA 01742-9133			WANG, TED M	
			ART UNIT	PAPER NUMBER
			2634	

DATE MAILED: 07/12/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

cm

Office Action Summary	Application No. 09/847,056	Applicant(s) TAKATZ ET AL.	
	Examiner Ted M. Wang	Art Unit 2634	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 November 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3-6 and 9-13 is/are rejected.
- 7) ☒ Claim(s) 2,7,8 and 14-16 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 November 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments, filed on 11/15/2004, with respect to the rejection(s) of claim(s) 1-06 under 35 USC § 112 first paragraph and 35 USC § 103(a) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn.

However, upon further consideration, a new ground(s) of rejection is made in view of Ueno (US 5,175,883).

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1, 3, 4, 6, and 9-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kurihara (US 6,731,703) in view of Ueno (US 5,175,883).

- In regard claim 1, Kurihara discloses a power level calculating circuit and receiver comprising the step of coupling a received radio frequency (RF) signal to a variable gain receiver amplifier, the variable gain receiver amplifier having a gain control input, to produce a gain controlled RIF signal (Fig.1 element 3 and column 6 lines 1-67);

digitizing the gain controlled RF signal to produce a received digital signal (Fig.1 element 5 and column 6 lines 1-67);

determining a wideband variance value from the received digital signal (Fig.1 element 10 and column 6 lines 1-67);

determining a narrowband variance value from the received digital signal (Fig.1 element 11 and column 6 lines 1-67).

Kurihara discloses all of the subject matter as described in the above paragraph except for specifically teaching that if the narrowband variance value is less than the wideband variance value, using the narrowband variance value to set the gain control input on the gain controlled receiver.

However, Ueno teaches that if the narrowband variance value is less than the wideband variance value, using the narrowband variance value to set the gain control input on the gain controlled receiver (Fig.1 element 9 and column 3 line 1 – column 2 line 13).

It is desirable that if the narrowband variance value is less than the wideband variance value, using the narrowband variance value to set the gain control input on the gain controlled receiver in order to prevent the occurrence of radio interference and noise (column 2 lines 26-31). Therefore, It would have been obvious to one of ordinary skill in the art at the time of the invention was made to include the method as taught by Ueno to replace the AGC feedback circuit (Fig.1 elements 8, 9, 12, and 13) of Kurihara's so as to prevent the occurrence of radio interference and noise.

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- In regard claim 3, Kurihara further discloses the limitation of down-converting the received digital signal, to produce a down converted signal (Fig.1 element 2 and column 5 lines 63-65); filtering the down-converted signal to produce a filtered received signal (Fig.1 element 6 and column 6 lines 1-7); determining the narrowband variance value from the filtered received signal (Fig.1 element 11, Fig.2A and 2B, and column 7 lines 11-30).
- In regard claim 4, Kurihara further discloses that the down-converted signal is a baseband signal (Fig.1 elements 5-7).
- In regard claim 6, Kurihara further discloses that the wideband variance value is determined directly from the received digital signal (Fig.1 element 10 and column 6 lines 1-67).
- In regard claim 9, which is an apparatus claim related to claim 1, all limitation is contained in claim 1. The explanation of all the limitation is already addressed in the above paragraph.
- In regard claim 10, which is an apparatus claim related to claim 6, all limitation is contained in claim 6. The explanation of all the limitation is already addressed in the above paragraph.
- In regard claim 11, which is an apparatus claim related to claim 3, all limitation is contained in claim 3. The explanation of all the limitation is already addressed in the above paragraph.

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- In regard claim 12, which is an apparatus claim related to claim 4, all limitation is contained in claim 4. The explanation of all the limitation is already addressed in the above paragraph.

4. Claims 5 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kurihara (US 6,731,703) and Ueno (US 5,175,883) as applied to claim 3 above, and further in view of Takagi (US 6,556,636).

- With regard claim 5, Kurihara and Ueno disclose all of the subject matter as described in the above paragraph except for specifically teaching the limitation of quadrature demodulating the down-converted signal, to produce an in phase (I) and quadrature (Q) signal used in determining the narrowband variance value. However, Takagi teaches that the limitation of quadrature demodulating the down-converted signal, to produce an in phase (I) and quadrature (Q) signal used in determining the narrowband variance value (Fig.1 elements 21I and 21Q, and column 5 lines 6-21).

It is desirable to the limitation of quadrature demodulating the down-converted signal, to produce an in phase (I) and quadrature (Q) signal used in determining the narrowband variance value in order to gain the advantages of simplicity and good performance. Therefore, It would have been obvious to one of ordinary skill in the art at the time of the invention was made to include the method as taught by Takagi in which quadrature demodulating the down-converted signal, to produce an in phase (I) and quadrature (Q) signal used in determining the

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narrowband variance value, into Kurihara and Uenos' receiver so as to gain the advantages of simplicity and good performance.

- In regard claim 13, which is an apparatus claim related to claim 5, all limitation is contained in claim 5. The explanation of all the limitation is already addressed in the above paragraph.

Allowable Subject Matter

5. Claims 2, 7, 8, and 14-16 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

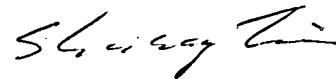
6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ted M. Wang whose telephone number is 571-272-3053. The examiner can normally be reached on M-F, 7:30 AM to 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Chin can be reached on 571-272-3056. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Ted M Wang
Examiner
Art Unit 2634

Ted M. Wang



SHUWANG LIU
PRIMARY EXAMINER